

AMENDMENT

Amendments to the Claims

1(Currently amended). A multicarrier communication device system, comprising:
a processor having an Orthogonal Frequency-Division Multiplexing (OFDM) transmitter that uses a transmitter having channel knowledge of a communication link received in a previous preamble to select a subcarrier to puncture prior to transmission.

2-4(Canceled).

5(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier to remove information and energy channel knowledge is selected from multipath fading, in-band interference and active electronic devices.

6(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier ~~is punctured~~ by placing energy in the selected subcarrier without including any modulated data or information.

7(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier ~~is punctured~~ and a Peak-to-Average Power Ratio (PAPR) of an OFDM symbol is reduced.

8(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier ~~is punctured~~ by placing no energy in the ~~punctured~~ selected subcarrier and a power level for remaining subcarriers is maintained.

9(Currently amended). The device system of claim 1 wherein the OFDM transmitter punctures the selected subcarrier ~~is punctured~~ and power is redistributed to remaining subcarriers.

10(Currently amended). The ~~device system~~ of claim 1 wherein the OFDM transmitter punctures the selected subcarrier is ~~punctured~~ to avoid in-band spectral interference.

11(Currently amended). A communications device comprising:
a transceiver; and
a processor having a puncture block that receives channel knowledge a
transmitter having channel knowledge of a communication-link subcarrier channel in a
prior preamble that is used to select a subcarrier to puncture prior to transmission by
the transceiver.

12(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is ~~punctured~~ by placing energy in the subcarrier without including any modulated data or information.

13(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is ~~punctured~~ and a Peak-to-Average Power Ratio (PAPR) of a symbol is reduced.

14(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is ~~punctured~~ by placing no energy in the punctured subcarrier and a power level for remaining subcarriers is maintained.

15(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is ~~punctured~~ and power is redistributed to remaining subcarriers.

16(Currently amended). The communications device of claim 11 wherein the puncture block punctures the subcarrier is ~~punctured~~ to avoid in-band spectral interference.

17(Original). A system comprising:
 an analog transceiver having at least one receiver chain to demodulate a subcarrier;

a processor coupled to the at least one receiver chain to select a subcarrier to puncture prior to transmission based on channel knowledge of a communication link; and

a Static Random Access Memory (SRAM) memory coupled to the processor.

18(Original). The system of claim 17, wherein the processor further includes:
an Orthogonal Frequency Division Multiplexing (OFDM) transmitter having a carrier puncturing circuit with an input to receive channel knowledge information.

19(Original). The system of claim 18 wherein the carrier puncturing circuit receives channel knowledge information about in-band spectral interference to puncture a subcarrier.

20(Original). The system of claim 17 wherein the processor further includes:
an Orthogonal Frequency Division Multiplexing (OFDM) receiver having a carrier depuncturing circuit that receives information about subcarriers to skip.